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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,412	05/11/2005	Shigeo Yukawa	043167	7161
38834 7590 07/10/2008 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036				
EXAMINER CHEVALIER, ALICIA ANN				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
07/10/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/534,412

**Applicant(s)**

YUKAWA ET AL.

**Examiner**

ALICIA CHEVALIER

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/US)  
Paper No(s)/Mail Date 2/25/08 + 5/11/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-15 are pending in the application, claims 11-15 are withdrawn from consideration.
2. Amendments to claims, filed on August 17, 2005, have been entered in the above-identified application.

#### ***Election/Restrictions***

3. Applicant's election without traverse of Group I, claims 1-10, in the reply filed on April 7, 2008 is acknowledged.
4. Claims 11-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 7, 2008.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tolliver et al. (U.S. Patent No. 5,069,964).

Tolliver discloses a retroreflective sheet (*title*), comprising: plural retroreflective elements; a resin support sheet (*binder layer, col. 4, line 53*); a transparent cover film (*face member, col. 10, lines 12-14*) disposed on a surface side of the resin support sheet; and a pressure-sensitive adhesive layer (*intermediate adhesive, col. 8, lines 27-31*) formed on a rear face side of the resin support sheet, wherein the retroreflective elements are held in at least one of the resin support sheet and the cover film, the resin support sheet and the cover film are connected to each other by heat press emboss forming from the rear face side of the resin support sheet so as to form a connection part, a groove of the connection part is formed on the rear face side of the resin support sheet, the groove is filled with a part of the pressure-sensitive adhesive layer (*figures 1 and 2*). The pressure sensitive adhesive layer is formed of a rubber-based resin or an acrylic resin (*col. 10, lines 39-60*).

Tolliver does not explicitly disclose the residual rate or the fall time of the pressure sensitive adhesive as claimed in claims 1-4. However, these properties would be inherent since Tolliver uses the same claimed pressure sensitive adhesive, e.g. a rubber-based resin or an acrylic resin (*col. 10, lines 39-60*).

The retroreflective element is a transparent bead of which a hemisphere part is covered with a reflective mirror, and is supported so that the hemisphere part of the transparent bead covered with the reflective mirror may be embedded in the resin support sheet (*reflectors, col. 4, lines 65-66 and figures 1 and 2*).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tolliver et al. (U.S. Patent No. 5,069,964).

Tolliver is relied upon as described above.

Tolliver fails to disclose wherein a thickness of the pressure-sensitive adhesive layer at a part where the groove is not formed on the rear face side of the resin support sheet ranges between 20  $\mu\text{m}$  and 110  $\mu\text{m}$  inclusive.

Therefore, the exact thickness of the adhesive is deemed to be a result effective variable with regard to the bonding strength to target. It would require routine experimentation to determine the optimum value of a result effective variable, such as thickness, in the absence of a showing of criticality in the claimed thickness. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

9. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tolliver et al. (U.S. Patent No. 5,069,964) in view of Ojeda et al. (U.S. Patent No. 6,326,072).

Tolliver is relied upon as described above. Tolliver further discloses using a removable protective liner over the adhesive during handling (*col. 5, lines 9-10*) that is laminated on the pressure sensitive adhesive layer (*figure 2*).

Tolliver fails to disclose the protective liner is resin release film made of an unstretched polypropylene film or a low-density polyethylene film.

Ojeda teaches in the background information that various materials are known to be used to manufacture release liners such as unstretched polypropylene (*col. 1, lines 37-47*). Ojeda also discloses that release liners are used in transportation and storage of self-sticking products (*col. 1, lines 19-23*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a known material such as unstretched polypropylene film as taught by Ojeda as the release liner in Tolliver.

The combination of Tolliver and Ojeda do not explicitly disclose the young's modulus or the release film as claimed in claim 9. However, these properties would be inherent since the combination of Tolliver and Ojeda uses the same claimed release film, e.g. unstretched polypropylene film.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Alicia Chevalier/  
Primary Examiner, Art Unit 1794  
7/9/2008